telephony

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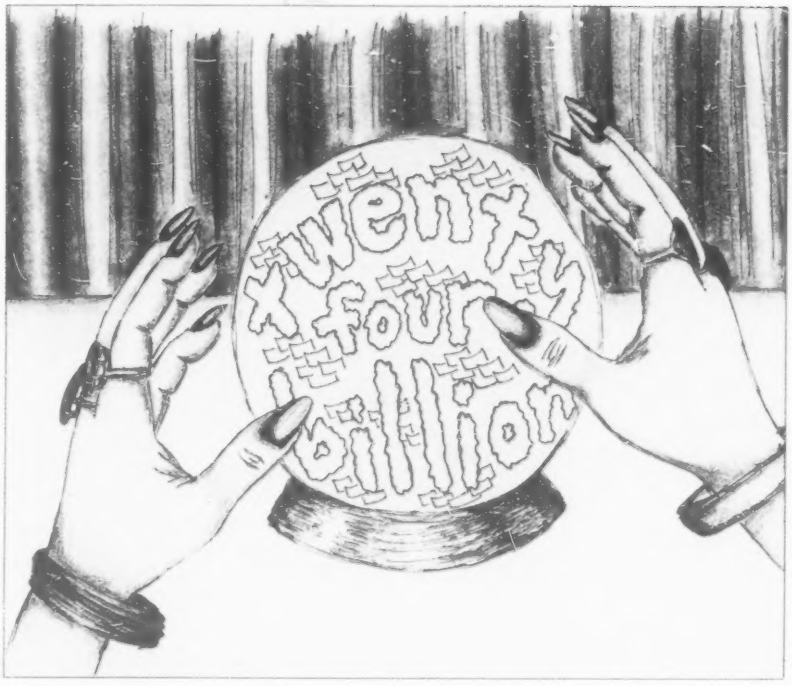
Carriers plan $24 billion outlay in 1986

As both local exchange carriers (LECs) and interexchange carriers (IXCs) continue to upgrade their networks in 1986, they will spend an estimated $24 billion for new and replacement equipment.



Cover art by Sharon Matjack

CZATDANA INAN, MARKET RESEARCH DIRECTOR, and LARRY LANNON, EXECUTIVE EDITOR

CARRIERS will continue to upgrade their networks in 1986 in pursuit of the sophisticated business user. As they did in 1985, fiber optic cable and digital switches will fuel the chase.

Carriers in the United States, including both local exchange carriers (LECs) and interexchange carriers (IXCs), plan to spend $24.009 billion in 1986 for new and replacement equipment (Table 1). In 1985, U.S. carriers spent an estimated $24.06 billion for equipment, so spending is expected to slow slightly this year. However, early indications are that spending will pick up again in 1987, when carriers will spend an estimated $24.3 billion.

LECs again will outspend IXCs by a large margin in 1986. LECs will spend an estimated $20.194 billion in 1986, a full 84% of total carrier expenditures. IXCs will spend $3.815 billion this year.

The regional holding companies (RHCs) will account for the largest portion of carrier expenditures in 1986, reflecting their overwhelming importance in the LEC industry. The RHCs will spend an estimated $14.64 billion in 1986, up from their estimated expenditures of $14.60 billion in 1985. Four of the RHCs will increase their expenditures slightly in 1986, while three will cut theirs.

Bell Atlantic, which spent an estimated $2.028 billion in 1985, is expected to spend $2.081 billion in 1986. BellSouth is expected to increase its outlay from $2.549 billion in 1985 to $2.684 billion in 1986. Nynex is expected to boost its annual investment from $2.045 billion last year to $2.077 billion in 1986. And Southwestern Bell is expected to spend $2.123 billion in 1986, up from the $1.996 billion it invested in 1985.

The three trimmers will be Ameritech, Pacific Telesis and U S West. Ameritech spent an estimated $1.958 billion last year and is expected to cut that outlay slightly to $1.946 billion in 1985. Pacific Telesis is expected to spend $2.021 billion in 1986, down from the estimated $2.186 billion it spent last year. And U S West, which spent an estimated $1.84 billion in 1985, is expected to cut its expenditures to $1.707 billion.

Four of the seven RHCs spent more than $2 billion in 1985. In 1986, five of the seven are expected to surpass the $2 billion level. Only Ameritech and U S West are expected to invest less than $2 billion this year. And

Continued on page 34

The source

This article is based on the 1986 Carrier Market Forecast, this year's version of an annual study done by TELEPHONY'S *Market Research Dept. The study is available to the public. For more information, contact Market Research Director Czatdana Inan,* TELEPHONY, *55 E. Jackson Blvd., Suite 1100W, Chicago, Ill. 60604; telephone: (312) 922-2435.*

Table 1 Construction Spending 1984-87 of Major U.S. Carriers

1984 Revenues (000,000)	Access Lines (June 30, 1985)	7 Regionals	CONSTRUCTION EXPENDITURES ($000,000) Actual 1984	Estimated 1985	Estimated 1986	Estimated 1987
	4,764,366	Illinois	496.6	674.1	656.8	677.5
	1,438,329	Indiana	196.4	207.0	229.5	241.1
	3,664,345	Michigan	426.9	454.6	500.0	561.8
	2,952,757	Ohio	417.3	422.0	355.9	360.7
	1,509,630	Wisconsin	203.6	200.7	204.0	198.5
$ 8,346.8	14,329,427		1,740.8	1,958.4	1,946.2	2,039.6
		Bell Atlantic				
	5,786,473	C&P	757.0	876.0	893.0*	875.0*
	4,100,000*	New Jersey	538.8	522.5	530.0*	530.0*
	4,881,578	Bell of Pa	532.0	629.0	658.0	677.0
$ 7,968.3	14,768,051		1,827.8	2,027.5	2,081.0	2,082.0
		BellSouth				
	6,379,785	South Central	944.1	1,046.8	1,094.1	1,060.0
	7,912,194	Southern	1,263.7	1,502.1	1,590.2	1,579.0
$ 9,143.6	14,291,979		2,207.8	2,548.9	2,684.3	2,639.0
		Nynex				
	5,083,316	New England	765.5	803.0	839.9	883.0*
	9,672,209	New York	1,119.0	1,242.0	1,237.1	1,302.0*
$ 9,507.0	14,755,525		1,884.5	2,045.0	2,077.0	2,185.0
		Pacific Telesis				
$ 7,697.1	11,294,259	Pacific (a)	1,993.0	2,186.0	2,021.0	2,000.0*
		Southwestern Bell				
$ 6,968.7	10,750,652	SW Bell	1,744.4	1,996.1	2,123.4	2,445.2
		U S West				
	5,011,250	Mountain	899.8	955.0	875.0	950.0
	2,993,811	NW Bell	350.9	500.0	450.0*	460.0*
	2,564,459	Pacific NW	349.6	384.9	381.9	395.0*
$ 6,909.3	10,569,520		1,600.3	1,839.9	1,706.9	1,805.0
		Top 18 Independents				
$ 7,729.6	10,900,000	GTE (U.S. only)	2,173.0	2,365.0	2,499.0	2,327.0
2,145.2	3,197,385	United	508.6	564.0	567.6	567.9
1,562.9	1,600,000	Contel	469.9	437.9	443.4	436.3
1,273.4	2,227,591	SNET (b)	214.3	245.0	285.0	327.0*
785.5	1,285,806	Centel	162.8	170.0	184.5	166.2
$13,496.6	19,210,782		3,528.6	3,781.9	3,979.5	3,824.4
$ 490.8	882,165	Alltel	132.8	149.3	149.0	149.0
448.3	710,805	Cincinnati Bell	59.5	85.2	66.7	69.3
352.4	570,875	Puerto Rico Tel	109.3	135.0	160.0	145.0
295.7	467,300	Rochester	56.8	90.6	68.8	65.6
111.0	227,618	Century	37.3	41.3	41.1	44.7
$ 1,698.2	2,858,763		395.7	501.4	485.6	473.6
$ 93.5	182,885	TDS	28.5	27.5	29.9	28.0*
126.6	194,405	Lincoln	30.4	32.6	33.2	29.7
122.9	170,000	Pacific Telecom	33.3	36.5	46.0	46.8
75.3	158,065	Commonwealth	20.7	23.8	33.9	28.0
102.4	113,437	Anchorage	41.7	53.2	52.9	30.6
$ 520.7	818,762		154.6	173.6	195.9	163.1
$ 52.5	73,092	Illinois Cons	11.0	10.8	10.7	10.6
97.6	81,608	Citizens Ut	24.5	21.2	28.0	27.0
73.9	56,000*	CP National	15.2	19.2	21.0*	21.0*
$ 224.0	210,700		50.7	51.2	59.7	58.6
		LECs' Subtotal				
$56,540.0	90,759,413	7 Regionals	12,998.6	14,601.8	14,640.1	15,195.8
15,939.5	24,099,000	18 Independents	4,129.6	4,508.1	4,720.7	4,519.7
1,387.3	3,172,200	Other LECs (c)	728.8	795.5	833.1	797.6
$73,867.6	118,030,600		17,857.0	19,905.4	20,193.9	20,513.1
		Major IXCs' Subtotal (d)	3,853.2	4,154.9	3,815.0	3,800.0
		All Carriers: TOTAL	21,710.2	24,060.3	24,008.9	24,313.1

***Estimated by Telephony**

a. Includes Nevada Bell

b. Does not include diversified activities

c. Other Independents estimated at 15% of total Independent

d. See Table 2 for details

Source: Telephony/Market Research

Ameritech will fall only about $50 million short of the $2 billion market.

There is nothing particularly significant about $2 billion, except that it obviously is a lot of money. The important point is what lies behind the naked numbers: The RHCs are determined to stick to their plans to upgrade their networks and vigorously compete for the lucrative large business customer by providing sophisticated, network-based services. The precise amount that one or another RHC spends, whether that amount increases slightly or decreases slightly or if that amount is a little more than or a little less than $2 billion per year, is much less important than the fact that all seven RHCs have mapped similar strategies and are methodically investing in their networks to bring those strategies to fruition.

Behind all that money lies a commitment to compete where the competition is fiercest.

The 18 largest Independents, a group which includes the traditional Independents plus Cincinnati Bell and Southern New England Tel (SNET), have come to conclusions which closely resemble the RHCs', judging by their spending plans.

'The RHCs are determined to stick to their plans to upgrade their networks and vigorously compete for the lucrative large business customer by providing sophisticated, network-based services.'

The 18 largest Independents are expected to spend $4.721 billion in 1986, up from the estimated $4.508 billion they spent in 1985. Only 6 of the 18 companies—Alltel, Cincinnati Bell, Rochester, Century, Anchorage, Illinois Consolidated—are expected to spend less in 1986 than they spent in 1985. Alltel, Century, Anchorage and Illinois Consolidated expect the difference to be marginal. Cincinnati Bell is expected to spend $66.7 million in 1986, after spending an estimated $85.2 million in 1985. Rochester spent an estimated $90.6 million in 1985, an outlay which it is expected to reduce to $68.8 million in 1986.

The five largest Independents are all expected to increase their expenditures in 1986. GTE, which spent an estimated $2.365 billion in 1985, is expected to invest $2.499 billion in 1986. Only BellSouth among all carriers is expected to spend more in 1986 than GTE.

United is expected to spend $568 million in 1986, a slight increase over the estimated $564 million it spent in 1985. Contel is expected to spend $443 million this year, up from the estimated $438 million it spent last year. SNET, which spent an estimated $245

Continued on page 36

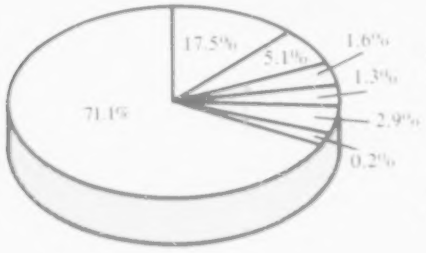
Figure 1 U.S. Local Exchange Carriers (LECs) to Spend $20.194 Billion for New Replacement Equipment in 1986

Local Exchange Carriers (LECs) 1986 Capital Expenditures

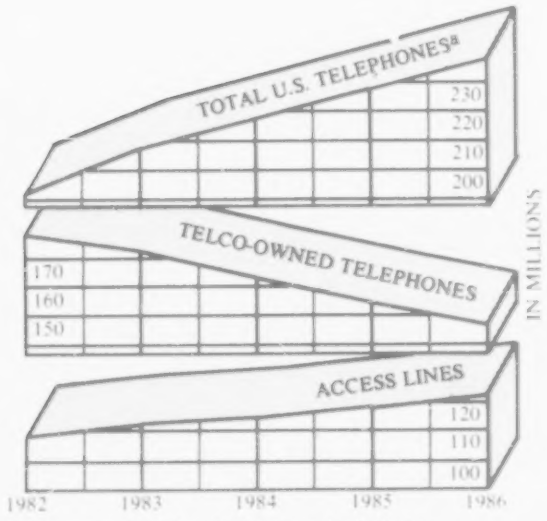
	In %
Switching, including special services & test equipment	
Local	26.2
Toll & Local/Toll	1.8
	28.0
Transmission, including line conditioning, carrier & test equipment	18.4
Microwave	1.0
Mobile, Cellular & Paging	0.5
	19.9
Internal Use/CPE	
Voicecom	1.3
Datacom	2.3
	3.6
Cable	
Underground	7.1
Buried	11.5
Aerial	7.5
Fiber Optic	3.6
	29.7
Support Services	
Land & Buildings	5.9
Vehicles	1.8
	7.7
Other, including Computers, Furniture, Tools & Work Equipment, Station Connections, Administrative & Engineering	11.1

Source: Telephony/Market Research

Figure 2 Access Lines & Telephones in U.S.



U.S. Access Lines (6/30/85)
71.1% Residential
17.5% Business*
5.1% Centrex Lines & Trunks
2.9% PBX Trunks
1.6% Coin
1.3% WATS
0.2% Other
*Includes Standalone key system lines



a Customer-owned and telco-owned telephones

Source: Telephony/Market Research

million in 1985, is expected to increase its expenditures for equipment to $285 million in 1986. Centel is expected to spend $185 million in 1986, up from the $170 million it spent last year. Puerto Rico Tel, after spending an estimated $135 million in 1985, is expected to spend $160 million in 1986.

Altogether, the five top Independents are expected to spend $3.980 billion in 1986 after laying out an estimated $3.782 billion in 1985.

TDS is expected to spend $29.9 million in 1986, up from the $27.5 million it spent last year. Lincoln is expected to spend $33.2 million in 1986 after spending an estimated $32.6 million in 1985. Pacific Telecom, which spent an estimated $36.5 million in 1985, is expected to boost its expenditures to $46 million.

Commonwealth is expected to spend $33.9 million in 1986, up from the $23.8 million it is estimated to have spent last year. Citizens Utilities is expected to spend $28 million in 1986, considerably more than the $21.2 million it is estimated to have spent in 1985. CP National, which spent an estimated $19.2 million in 1985, is expected

Continued on page 40

Table 2 LECs 1982-1986

Performance Composite ($000,000)

	Plant Investment	Revenues	Expenses
Est. 1986	$217,900	$83,146	$69,305
Est. 1985	203,700	79,243	68,528
Actual 1984	193,779	73,868	64,450
1983	199,272	78,903	69,213
1982	191,746	75,074	66,603

Source: USTA

Table 3 Major Interexchange Carriers (IXCs)

	TOTAL REVENUES ($000,000) 12 Months 1983	12 Months 1984	Projected* 12 Months 1985	CUSTOMERS (and % Business Users)	% Bus		% Bus
AT&T Communications	$34,528.7	$36,413.8	$38,600.0	87,000,000	9%	87,900,000*	9%
MCI	1,521.5	1,959.3	2,850.0	1,613,000	19%	3,088,000	17%
GTE Sprint	578.0	1,245.0	1,650.0	1,400,000	25%	1,700,000	20%*
ALC Communications (a)	181.0	287.5	514.0[a]	196,000	47%	560,788[a]	37%
US Telecom	160.6	222.1	380.0	175,000	70%	350,000	30%
	$35,969.8	$40,127.6	$43,994.0	90,384,000		93,598,788	

	CONSTRUCTION BUDGET ($000,000) 1984	1985	1986	EMPLOYES 1984	1985	INSTALLED SWITCHES 1983	1984	1985
AT&T Communications	$1,341.9	$2,041.0[b]	$1,900.0*	117,025	118,074	167	167	167
MCI	1,157.2	1,050.0	900.0	9,870	12,656	98	126	116
GTE Sprint	980.0	700.0[c]	600.0	6,500	6,200	55	72	63
ALC Communications	24.1[d]	38.9[d]	90.0*	1,579	2,283[a]	27	30	44[a]
US Telecom	350.0*	325.0*	325.0*	2,041	2,600	NA	10	15
	$3,853.2	$4,154.9	$3,815.0	137,015	141,813			

*Estimated by Telephony

a Reflects merger of Allnet and Lexitel in December 1985

b Extrapolated on basis of $1,407.6 billion spent as of August 1985

c Revised on basis of route-sharing arrangement with US Telecom

d Includes network equipment under lease

Source: Telephony/Market Research

to spend $21 million in 1986. The other LECs are expected to spend $833.1 million in 1986, up from the $795.5 million they are estimated to have spent in 1985.

Besides their shared interest in capturing as many business customers as possible, the LECs have a recent history of sustained growth to buoy their investment planners. With the exception of 1984, and using estimated totals for 1985-86, the LECs have steadily increased their plant investment, expenses and, most importantly, their revenues (Table 2).

The business picture looks different from the IXCs' point of view. The five major IXCs are expected to spend $3.815 billion in 1986, down from the estimated $4.155 billion they spent in 1985 (Table 3). The big three IXCs—AT&T Communications, MCI and GTE Sprint—are expected to reduce their outlays. AT&T Communications is expected to spend $1.9 billion in 1986, down from the estimated $2.041 billion it spent last year. MCI, which spent an estimated $1.05 billion in 1985, is expected to spend $900 million in 1986. GTE Sprint is expected to spend $600 million this year, after spending an estimated $700 million last. US Telecom, after spending an estimated $325 million in 1985, is expected to spend the same amount this year. ALC Communications, the company recently formed when Allnet and Lexitel finalized their merger, spent an estimated $38.9 million in 1985 and is expected to spend $90 million this year.

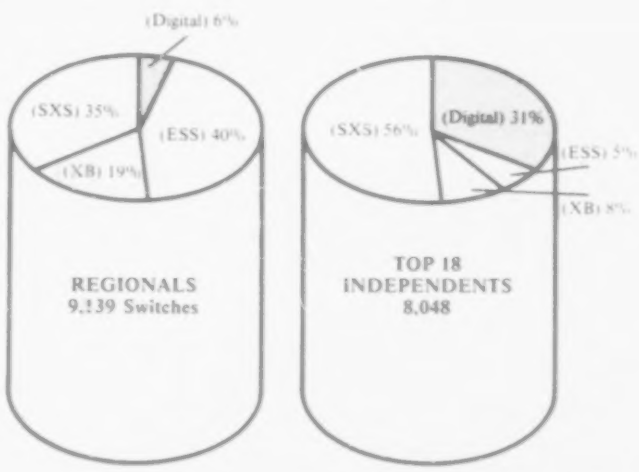
Switching and transmission technology will dominate the LECs' expenditures in 1986 (Figure 1). Switching will consume 28% of total 1986 LEC expenditures, while transmission cable will take 29.7%. Fiber optic cable will consume 3.6% of total LEC expenditures. Together, switches and cable will account for 57.7% of LEC outlays in 1986.

Sophisticated digital switches and high capacity fiber optic cable hold the keys to the hearts and wallets of demanding business customers. Business customers account for a small proportion—17.5%— of total access lines (Figure 2). But they are easily the most important revenue generators. They are also the telecommunications consumers with the most options.

The RHCs have decided to bring full capability to business users as rapidly as possible. Table 4 summarizes the RHCs' spending plans for fiber optics in 1986. Digital switches are of equal importance in the competition for business customers. Currently, the 18 largest Independents have a larger percentage of digital switches than their RHC counterparts. The Independents have 8048 switches, of which 31% are digital, while only 6% of the RHCs' 9139 switches currently are digital (Figure 3).

The coming year promises to witness the acceleration of the already hot pursuit of the large business customer by the carrier industry. In order to woo those business customers successfully, the carriers will rely heavily on digital switches and fiber optic transmission links. All the carriers intend to bolster their networks by investing heavily, particularly in the two key technologies.

Figure 3 Local Switches by Technology As of 6/30/85



Source: Telephony/Market Research

Table 4 Fiber Optics & the Seven Regionals

1986 Spending % Budget	1986 Spending In Dollars (000,000)		Fiber Miles (as of 6/30/85) Subscriber Loop	Inter-Office	Total
		Ameritech			
3.8%	24.958	Illinois	6,295	18,451	24,746
5.7%	13.082	Indiana	10,719	589	11,308
4.5%*	22.500	Michigan	NA	NA	20,000[a]
4.0%	14.236	Ohio	NA	NA	8,000[b]*
4.3%	8.772	Wisconsin	NA	NA	8,500
	83.548				72,554
		Bell Atlantic			
4.0%*	35.720	C&P	NA	NA	26,638[a]
4.0%*	21.200	New Jersey	8,100	17,900	27,000[a]
4.0%	26.320	Bell of Pa	13,330	4,154	17,484
	83.240				71,122
		BellSouth			
3.2%	34.925	South Central	NA	NA	34,503
4.1%	65.198	Southern Bell	53,029	9,447	62,476
	100.123				76,981
		Nynex			
2.8%	23.517	New England	NA	NA	42,800
3.2%	39.587	New York	NA	NA	78,300
	63.104				100,123
		Pacific Telesis			
3.9%*	78.819	Pacific	11,185	100,661	111,846
		Southwestern Bell Corp.			
4.8%	101.923	Southwestern Bell	NA	NA	48,000[a]
		U S West			
4.5%*	39.375	Mountain Bell	9,143	2,834	11,977
3.5%*	15.750	Northwestern Bell	NA	NA	10,000[c]*
3.5%	13.367	Pacific NW	12,500	400	12,900
	68.492				34,877
	$579.248	**Grand Total**			515,503

*Estimated by Telephony
a. As of 12/31/85
b. Reported 2,256 sheath miles in subscriber loop, 140 in inter-office
c. Reported 194 sheath miles in subscriber loop, 914 in inter-office

Source: Telephony/Market Research